LPGS CDR ADDENDA

(3 of 3)

Package Contents

ADDENDUM 3 - ABBREVIATIONS

AA	anomaly analysis
AAS	Anomaly Analysis Subsystem
AAUI	AAS analyst user interface
AIT	Algorithm Implementation Team
API	applications programmatic interface
ASCII	American Standard Code for Information Interchange
AUI	analyst user interface
cNMOS	consolidated Network and Mission Operations Support
CASE	computer-aided software engineering
CD-ROM	compact disc read-only memory
CCR	configuration change request
CDE	Oracle Corporation's Cooperative Development Environment
CDS	critical design specification
COTS	commercial off-the-shelf
CPF	calibration parameter file
CPU	central processing unit
DAA	data availability acknowledgment
DAAC	Distributed Active Archive Center
DAN	data availability notice
DAT	digital audio tape
DBAR	Database Access Routine
DBMS	Database Management System
DD	data dictionary
DDA	data delivery acknowledgment
DDE	data dictionary entry

DDN	data delivery notice
DFCB	data format control book
DFD	data flow diagram
DFL	DMS Format L1 Product
DGR	DMS Generate Reports
DHF	Data Handling Facility
DIE	DMS IF With ECS
DIL	DMS Ingest L0R Product
DMS	Data Management Subsystem
DPL	DMS Process L0R Product
DRM	DMS Resource Manager
DSI	delivered source instructions
DSS	data server subsystem
DXL	DMS Xmit L1 Product
E&A	evaluation and analysis
ECS	EOSDIS Core System
EDC	EROS Data Center
EGS	EOS Ground System
ENVI	Environment for Visualizing Images
EOS	Earth Observing System
EOSAT	Earth Observation Satellite Company
EOSDIS	EOS Data and Information System
ERD	entity relationship diagram
EROS	Earth Resources Observing System
ESDIS	Earth Science Data and Information System
ETM+	Enhanced Thematic Mapper Plus
F&PRS	functional and performance requirements specification
FAST	Fast Argonne System for Transport; an output format for L1 digital images

FDDI	fiber-optic data distribution interface
FIFO	first in, first out
ftp	file transfer protocol
GB	gigabytes
GCP	ground control point
GDS	ground data system
GeoTIFF	Geographic Tag(ged) Image File Format; an output format for L1 digital images
GPS	Geometric Processing Subsystem
GSFC	Goddard Space Flight Center
GUI	graphical user interface
HDF	hierarchical data format
HWC	hardware component
HWCI	hardware configuration item
I&T	integration and test
I/O	input/output
IAS	Image Assessment System
IC	internal calibrator
ICD	interface control document
IDD	interface data descriptions
IDL	Interactive Data Language
IGS	international ground station
IPC	interprocess communication
IRD	interface requirements document
ISO	International Standards Organization
LAN	local area network
L0R	Level 0R
L1	Level 1
L1G	Level 1 geometrically corrected

L1R	Level 1 radiometrically corrected
Landsat	Land Satellite
LGN	Landsat ground network
LGS	Landsat 7 ground station
LPGS	Level 1 Product Generation System
LPS	Landsat 7 Processing System
M	meter
MB	megabytes
MBps	megabytes per second
MIPS	million instructions per second
mm	millimeter
MMO	Mission Management Office
MO&DSD	Mission Operations and Data Systems Directorate
MO&SDD	Mission Operations and Systems Development Division
MOC	Mission Operations Center
MSCD	mirror scan correction data
M-Specs	module specifications
MSS	management subsystem
MTF	modulation transfer function
MTPE	Mission to Planet Earth
MTTR	mean time to restore
NASA	National Aeronautics and Space Administration
NCSA	National Center for Supercomputing Applications
NFS	Network File System
NOAA	National Oceanic and Atmospheric Administration
ODL	Object Descriptive Language
OUI	operator user interface
PAN	product acceptance notice
PC	personal computer

PCD	payload correction data
PCMB	Project Configuration Management Board
PCS	Process Control Subsystem
PDL	program design language
PDR	product delivery record
PDRD	product delivery record discrepancy
POSIX	portable operating system interface for UNIX
PRQ	PCS Request Processor
PSI	PCS System Initialization/Termination
PSO	Project Science Office
P-Specs	process specifications
PWC	PCS Work Order Controller
PWG	PCS Work Order Generator
PWS	PCS Work Order Scheduler
QA	quality assessment
QAS	Quality Assessment Subsystem
QUI	Quality Assessment User Interface (task)
Q1G	L1G Quality Assessment (task)
Q1R	L1R Quality Assessment (task)
RAID	redundant array of inexpensive devices
RAM	random access memory
RMA	reliability, maintainability, and availability
RPC	remote procedure call
RPS	Radiometric Processing Subsystem
RSI	Research Systems, Inc.
RTM	Requirements and Traceability Management (tool)
SAT	Shift Along Track
SCSI	multiple small computer system interface
SDPS	science data processing segment

SDR	system design review
SDS	system design specification
SEAS	system engineering and analysis support
SGI	Silicon Graphics, Inc.
SNR	signal-to-noise ratio
SQL	Structured Query Language
SRR	system requirements review
SSDM	SEAS system development methodology
SSR	solid-state recorder
SWCI	software configuration item
TBD	to be determined
TBR	to be resolved
TBS	to be supplied
TIFF	tagged image file format
UI	user interface
URF	user request file
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VME	Versa Module European
WO	work order
WRS	Worldwide Reference System

ADDENDUM 4 - DEFINITIONS

Enhanced Thematic Mapper Plus (ETM+)

The imaging instrument onboard Landsat 7.

Interval

The time duration between the start and stop of an imaging operation (observation) of the Landsat 7 ETM+ instrument.

IRIX

A version of the UNIX operating system running on the LPGS Origin 2000 and Indy workstations.

Level 0R (L0R) digital image

Spatially reformatted, demultiplexed, and unrectified subinterval data.

Level 0R (L0R) product

The L0R digital image plus radiometric calibration, attitude, and ephemeris data, consisting of the following files:

- L0R digital image

- Internal calibrator (IC) data Calibration data file containing all the calibration data received on a major frame basis for a given subinterval

- Mirror scan correction data (MSCD)   The scan direction and error information for a given subinterval

- Payload correction data (PCD) Information on spacecraft attitude and ephemeris, including quality indicators for each subinterval

- Metadata   Descriptive information about the L1 digital image, names of appended files associated with the image, and quality and accounting information

- Calibration parameter file (CPF) A formatted file containing gains, biases, and offsets for the instrument and detectors

Level 1G (L1G) digital image

Radiometrically corrected and resampled for geometric correction and registration to geographic map projections. Can be WRS-based or have a floating scene center but is restricted to one orbital path and must be generated from the same Level 0 acquisition interval.

Level 1G (L1G) product	L1 product packaged by LPGS and distributed by the ECS to the customer includes for all requested bands: Fast Argonne System for Transport (FAST) or Geographic Tag(ged) Image File Format (GeoTIFF) format L1G image and associated data accommodated by the format; HDF format L1G image, metadata, CPF, and geolocation table.
Level 1R (L1R) digital image	Radiometrically corrected but not geometrically resampled. Image size can be from .25 to 3 WRS scene equivalents. Can be WRS-based or have a floating scene center but is restricted to one orbital path and must be generated from the same Level 0 acquisition interval.
Level 1R (L1R) product	L1 product packaged by LPGS and distributed by the ECS to the customer includes for all requested bands: L1R image data, metadata including processing quality information, IC data file, CPF, combined PCD file, combined MSCD file, and geolocation table in hierarchical data format (HDF).
LPGS database	A persistent storage repository containing configuration elements that can be set, Level 1 processing parameters and quality assessment thresholds as well as information for data ingest, data processing, etc.
LPGS error log	An ASCII file containing all of the status and error messages generated by the LPGS software.
LPGS GUI	The LPGS graphical user interface that provides access to a LPGS function string. The LPGS GUI consists of a main menu from which LPGS commands can be selected, additional dialogs for providing parameters to the command, and confirmation dialogs to prevent accidental command execution.

Product generation request	Request received from ECS directing LPGS to generate a specific Level 1R or Level 1G product. The product generation request includes:

- L0R subinterval identifier

- Start and stop scan lines

- Output product (1R or 1G)

- Output format

- Band selection

- Map projection option and project parameters

- Grid cell size

- Resampling filter

- Orientation

- Calibration method

Production quality assessment	Ancillary information collected and generated during L1 processing; provides information on the certainty with which corrections were made to images; nominally appended as a file to the L1 product.
SQL*Plus	The ORACLE SQL interpreter.
Subinterval	Segment of time corresponding to a portion of an observation within a single Landsat 7 contact period.
User request file	See Product generation request
Worldwide Reference System (WRS) scene	A frame of imagery defined by the Worldwide Reference System. Each scene is defined as a swath of approximately 179 kilometers (163 kilometers plus 10 percent in-track overlap) centered on a position along the Landsat 7 satellite's track. The WRS assigns sequential path numbers to the satellite's 251 nominal orbit tracks. The WRS also defines 119 numbered latitudinal center lines, called rows, that intersect the paths (row 60 is at the equator). WRS scene centers are defined as the points of intersection of the path and row lines. The scenes are designated by the path and row number at the scene center. A digital image covers an area equivalent to one of the 57,784 scene centers (233 paths x 248 rows areas) defined by the WRS structure.

xwsh   An IRIX program that provides an X window interface to a shell
                                  or to a specified application program.